

REMARKS

Claims 1-14 are pending in the current application. Claim 1 is an independent claim. Claim 1 is amended by this Amendment. No claims are canceled or added by this Amendment.

Claim Rejections under 35 U.S.C. § 102

Claims 1-3, 6-7, and 13-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Moshier (U.S. Pat. No. 4,228,498, herein Moshier). Applicant respectfully traverses this rejection.

Applicant notes claim 1 is amended to recite *inter alia* “the second data bus is a different type of bus system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus.” Applicant respectfully submits support for the above noted amendments may be found in Applicant’s specification at least at paragraphs [0006], [0009], and [0010].

For example, example embodiments disclosed in Applicant’s specification at paragraphs [0009] and [0010] disclose that the first data bus may be a Profibus, that the second data bus may be an AS-i bus, and/or that the third data bus may be a peripheral bus.

Moshier discloses “a computing apparatus having at least three buses and a plurality of elementary function modules in circuit connection therewith.”¹ However, Moshier does not disclose a coupling apparatus for data buses including connecting devices for the data buses which connect different types of bus systems. To the contrary, Moshier discloses “a plurality of buses 16a, 16b, and 16c. Each bus comprises a plurality of individual electrical lines, the lines being organized into groups.”² Therefore, the buses disclosed by Moshier are each of the same type of bus system. Moshier does not disclose connecting devices coupled to data buses or a

data processing device which allow data to be interchanged between different types of bus systems. Accordingly, Moshier fails to disclose connecting devices coupled to data buses and/or a data processing device which allow data to be interchanged between data buses wherein “the second data bus is a different type of bus system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus” as required by amended claim 1. Applicant respectfully submits that amended claim 1 is patentable for at least the above reasons. Further, Applicant respectfully submits that claims 2-3, 6-7, and 13-14, which depend from amended claim 1, are patentable for at least the same reasons as amended claim 1 as well as on their own merits.

Applicant respectfully addresses separately the rejection of dependent claim 3. Moshier discloses a control element connected to each of the buses for directing the operation of the apparatus.³ However, Moshier does not disclose that the data transfer is controllable based on the type of data to be transferred. For example, example embodiments in Applicant’s specification at least at paragraph [0008] disclose the coupling apparatus may be configured in such a way that the data transfer between two or three of the data buses may be controlled as a function of the semantics of the data to be transmitted, for example, it may be possible to configure the transmission of standard data differently to that for the transmission of safety-relevant or security-relevant data. Accordingly, example embodiments disclosed in Applicant’s specification may allow for the transfer of data to be controlled based on the type of data, e.g., the semantics of the data, to be transferred. Moshier does not disclose transmitting different types of data or data having different semantics, let alone a coupling apparatus configurable based on the semantics of the data to be transferred. To the contrary, as noted above, each of the

¹ See Moshier at Abstract.

² *Id.* at Col. 3, Ll. 40-43.

³ See *Id.* at Abstract.

data buses in Moshier are the same as each other. Accordingly, Moshier fails to disclose “the coupling apparatus is configurable in such a way that the data transfer between at least two of the data buses is controllable as a function of the semantics of the data to be transmitted” as required by claim 3.

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 102(b) be withdrawn.

Claim Rejections under 35 U.S.C. § 103

Claims 4-5 and 8-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Moshier in view of Krivoshein (U.S. Pat. No. 6,449,715, herein Krivoshein). Applicant respectfully traverses this rejection.

Applicant respectfully submits that even assuming for the sake of argument Moshier and Krivoshein are combinable (which Applicant does not admit), Krivoshein fails to cure the deficiencies of Moshier with respect to amended claim 1 as discussed above. In particular, Applicant respectfully submits that Krivoshein clearly fails to disclose a separate connecting device for each data bus, the connecting devices and/or a data processing device connecting data buses of different types of bus systems to allow data to be interchanged between the data buses. To the contrary, Krivoshein merely discloses a user input section 74 which prompts or otherwise enables a user to input information pertaining to any or all of the devices.⁴ Therefore, Krivoshein merely discloses an user input section and not connecting devices coupled to data buses and/or a data processing device which allow data to be interchanged between data buses wherein “the second data bus is a different type of bus system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus” as

required by amended claim 1. Accordingly, Applicant respectfully submits that claims 4-5 and 8-12, which depend from amended claim 1, are patentable for at least the same reasons discussed above in regards to amended claim 1 as well as on their own merits.

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 103(a) be withdrawn.

⁴ See Krivoshein at Col. 13, Ll. 20-23.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

 55,149

Donald J. Daley, Reg. No. 34,313

Scott A. Elchert, 55,149

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

DJD/SAE/AAM: tlt